

Recumbent Cyclist News

The Recumbent Enthusiasts' Newsletter - Since 1990 - #100 June/July 2007

Celebrating the 100th issue of Recumbent Cyclist News!



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Challenge Traveling Mistral, pg. 21

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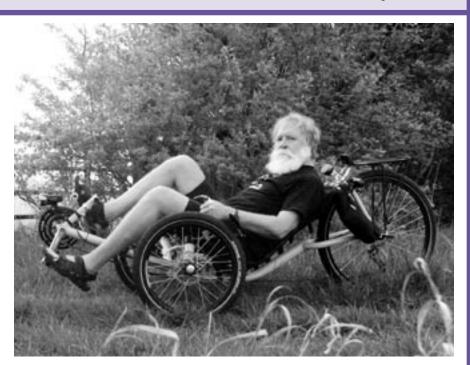
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Larry Varney and the Catrike Expedition

TRIKE: Catrike Expedition
PRICE: \$2,550 + freight
(\$2,099 rolling chassis)
CONTACT: www.catrike.com
TYPE OF USE: Touring

By Larry Varney & Bob Bryant

arry: You hunger for the performance and stability of the Catrike 700. And yet, you suspect that you won't be happy with the recline angle. You would prefer something more like the Road. What's more, you really don't like those skinny little tires — you're a tourist more than a racer, and you want the ride qualities and durability of fatter tires. If this describes you, then take a look at the new 2007 Catrike Expedition.

USE: Bob: While the name implies that this is a trike designed for loaded touring, and it certainly could be used for that, Catrike's Paulo Camasmie says, "This trike is for casual touring. We kept it light and fast enough, clean and simple — Catrike bred."

SEAT: Larry: The Expedition comes with Catrike's new Re-Curve seat with the new Space neck rest. The new seat, with its lumbar curve, fits me like a custom design. Couple that with the ability to change the position of the grips, and you have a riding position that will feel great all day.

Bob: I found it interesting that the Expedition has a more reclined seat (37°) than the sporty Road (39°). The new Trail model has the most upright seat of the line (45°).

The Expedition fits riders with an x-seam of 39"-46". An optional extra long boom is available and fits riders up to a 53" x-seam.

RIDE: Larry: If you're coming from a trike with indirect (linkage) steering, this Expedition may feel *funny*. But for those of us who have ridden Catrikes, it will feel fine — and even better than that, with its small amount of self-centering.

Expedition owner John Gilnick, writes, "On my Catrike Speed I had to avoid rough roads and speed bumps — but not with the

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RECUMBENT CYCLIST NEWS

Recumbent Cyclist News was published by Bob & Marilyn Bryant from 1990-2007, 101 issues. RCN was closed in December of 2007 when it became no longer financially feasible to publish a print newsletter. bryantrj@gmail.com

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Editorial License RAMBLINGS OF 100 ISSUES

by Bob Bryant, Publisher

t's difficult to believe that this issue marks the 100th edition of Recumbent Cyclist News. Back in the summer of 1990, when the first issue was published, our oldest child was tiny. Our kids are now 15- and 18- year old teenagers. I was just a regular guy, married, a college dropout, a Teamster shift worker . . . and a bicycle enthusiast.

Then one day back in 1987, I wandered into my local bike shop, Angle Lake Cyclery - run by Kelvin and Dale Clark (Dale still operates Angle Lake; Kelvin now owns Angletech in Colorado). I had owned and built-up several urban-assault mountain bikes (with upright handlebars & fat slick tires) and I was looking for something even more comfortable and faster. I was at Angle Lake to see the Moulton AM 14 fully-suspended small-wheel upright. I made several trips to look at this expensive bike. Finally, Kelvin said to me, "Maybe you should try a recumbent." It took some arm twisting, but about 30 minutes I had a life-changing test ride. I have been all about recumbent bikes since that day.

I grew up in the 60s and 70s and my dad was really into Schwinn bicycles and Harley Davidsons. My first bike came in 1969 - in the form of a Campus Green Schwinn Stingray one-speed with a coaster brake. It had a grey metalflake banana seat, a drag slick and no fenders. That bike was my pride and joy and I rode the wheels off it. In 1972 I upgraded to Schwinn Varsity, same color. My dad still has his. In 1990 I finally cruiser-ized dad's bike with upright bars. Later I got into European bikes and upgraded to Motobecane and several other drop bar sport touring bikes. My ultimate upright was a US Olympic team alternate racer, a Paris Sport 17-pound track bike with one brake. (I was a bit ahead of my time.)

My first recumbent was an Easy Racers Tour Easy that I ordered from the late Gardner Martin. It was my chopper-roots that made this the only recumbent I could buy.

About this time I started writing a column called "Recumbent Ramblings" for the International Human Powered Vehicle Association's (IHPVA) HPV News. My column included news and rumors from the fledgling recumbent industry. It wasn't very long until manufacturers wanted me to start testing their bikes.

I parted ways with the IHPVA in 1990. I had an idea for a recumbent newsletter. With \$50, and the mailing list from the (then) defunct Northwest HPV group — RCN was started. Shortly thereafter that I met Dick Ryan of Ryan Recumbents. Dick had started the Recumbent

Bicycle Club of America (RBCA) and needed a newsletter. We supplied RCN to RBCA members for a few years, but the club never really gelled. Dick needed to grow his business and I needed to make RCN profitable and the RBCA sadly faded away.

Because RCN wasn't profitable, and we were a young struggling family trying to make ends meet, I started selling recumbents. Millennium Recumbent Cyclist was the first catalog recumbent specialist - and we were undoubtedly the catalyst for shops like People Movers, Angletech, Zach Kaplan Cycles and The Hostel Shoppe. At one time we had 16 test bikes in our garage in Kent, WA. We sold bikes by appointment, during the day after I got home from my all night shift at the newspaper. I managed to write RCN in my spare time.

RCN was done on a \$100 Panasonic type-

Continued on page 16



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Recumbent News



Bacchetta LWB spy-photo

BACCHETTA: We have not been officially told about this bike, but it has been talked about on the Internet since February. First Bacchetta denied its existence, and then it turned up at their Florida rally. While we've heard nothing official, rumor has it the bike could be available by late Summer. Also, Bacchetta has placed their Ti Aero model on indefinite hiatus. www.bacchettabikes.com

BIKE FRIDAY: In late breaking news, we received a notice that the Sat'RDay folding recumbent has been discontinued. According to Bike Friday's Walter Lapchynski, "The Sat'RDay folding recumbent is a complicated product to manufacture and the fact is, our tikit 16" folding upright is and will be for some time, the center of our focus. By that, we emphasize that alternative transportation is a bigger pursuit of our energies and resources — all related to climate change and oil wars. More butts on bikes far outweighs decisions to focus energies on our folding recumbent. So, our beloved SatRDay is now a collectible, at least for the foreseeable future. We are keeping stats on the number of inquiries we get for it. But, at the moment it's not on the radar or calendar to continue production. All things subject to change, of course."

GREENSPEED: The "Frog" delta has a new name. As suggested by Lee David Rimar of Portland OR, USA. Lee writes, "Actually, I kinda like your "frog" code-name, so how about a few frog related names? ANURA: Scientific name for the order of amphibians that frogs belong to. Greek for "tail-less" and true of a delta trike." Lee will take out the major prize of a brand spanking new Anura, Greenspeed felta trike.

According to Greenspeed's latest information on the Anura, "There will only be one model released for 2007, with eventually a total of three possible models in the range. The frame size will just be the larger of the two sizes for 2007, with the small available till next year. The drive train is going to be a single crankset, freewheel and a Schlumpf Speed Drive (two-speed bottom bracket). We will have the Avid mechanical discs all around with a two-into-one for the rear brakes and a single for the front. We will have 2 color options of Yellow/Black and Silver/Black. Options will include tandem/trailer coupler, load carrying capacity, water capacity, mirror, computer, lights and fenders." The price is slated to be around \$2500 US dollars. We expect price and delivery confirmations very soon. RCN is getting a test trike from the first batch. www.gstrikes.com

GREENSPEED EUROPE: Greenspeed has also teamed up with Azub Bike, a recumbent builder in the Czech Republic, to create Greenspeed Europe. Greespeeds will now be assembled in Europe and be available through European dealers. www.greenspeed-europe.com

RCN BLOG: We have added several of our best articles to our blog archive: Short Cranks, Gear Inch Rant, The RANS Stratus LE road test, Sun EZ1 road test, Grenspeed GT3 road test, and WizWheelz TTC/TTT road test. Most have been updated and refreshed. http://recumbentcyclist.blogspot.com, see right sidebar. www.recumbentcyclist.blogspot.com

SUN: See page 12 for info on the new \$999 Sun Tomahawk. www.sunbicycles.com.

VOLAE recumbents will now be sold through dealers as well as direct. Visit their website for a list of dealers. www.volaerecumbents.com

WIZWHEELZ recently announced that Greenspeed has become the official importer and distributor of their trikes in Australia and New Zealand. The TTC and TTT models are now available, with more models to follow. David Lintemuth, WizWheelz Sales Manager, says, "This is a win-win formula for both Greenspeed and WizWheelz. This agreement is strengthening an already strong relationship between the two companies. www.wizwheelz.com



RCN 101 TEST BIKES:

We are currently testing a 2007 Volae Expedition Pro and a 2007 Wiz-Wheelz Race. These are two of our favorite bent builders because besides building cool bikes, they can ship fully asembled bikes to new owners

who don't have a dealer nearby (and recumbent reviewers). Both were also kind enough to allow us test loaners. For more info:

wizwheelz.com and volaerecumbent.com





Letters

Email: recumbentcyclist@gmail.com

Please write us. Letter limit is 300 words (or write an article). We edit for clarity, content and space limitations.

RIDER-FRIENDLY BENTS & BLOWOUTS

hanks for another fine issue of RCN — number 099! Two items in particular stood out for me. One was your comment to a letter on p. 4: "I had a tire blowout on a state highway. You'll only need to go down once before you agree with me." It is indeed horrifying to do so. I've had three blowouts causing me to be thrown from my bikes (one upright and two recumbents) and I narrowly escaped death in two of them. I wondered why these had occurred recently and not in my youth. Some students and I studied the problem, and found that the reason appears to be solely that there are no longer standards for the fit of tires on rims. So after much experimentation and consultations with experts we wrote a proposed new standard, published it in Human Power and elsewhere and sent it via Senator Kerry, a keen bicyclist, to the agency supposedly covering bicycle safety in the government. As you will guess, nothing whatsoever has been done. Please write to your congresspersons! You could save many lives and injuries.

The second spot-on contribution was "The ultimate, affordable and rider-friendly recumbent bicycle." It struck me as very timely because a couple of weeks ago I was interviewed at your suggestion by John Sedgewick, who writes for something called Forbes FYI. He wanted to write about recumbents, and he lives nearby. He came around to our house and we had an enjoyable evening. I felt sure that a positive article in this big-shot publication would follow. But last week he phoned in some consternation. He had bought or rented a recumbent, and it was something like a low racer. His seat was low and the pedals were high. He found riding it so disconcerting that he dared not go on the highways (which are, naturally, full of Boston drivers.) I don't have anything suitable that I could lend him right now, and directed him to a bike shop that has, or had, some entry-level recumbents. I hope that they have not been pulled in favor of more-exciting 'bents. I agree with you that someone should produce the best of the bikes we had just a few years ago.

Incidentally, there is a similar problem in the upright market. I would like to buy my visiting-nurse wife a bike suitable for her to do her rounds in all weathers, meaning that fenders, lights and disc brakes are a must. No one that I've found offers anything like it.

Keep up the good work! Dave Wilson Editor's Comments: David Wilson is a retired MIT professor, author of Bicycling Science, co-author of Human-Powered Vehicles, former editor of the IHPVA's technical journal, Human Power, and was one of the principals of the Avatar recumbent bicycle company in the early 1980s. According to Wikipedia, "He is credited, along with Chester Kyle, with starting the modern recumbent bicycle movement in the USA."

MAKE RCN MORE RIDER-FRIENDLY

I appreciated Bob Bryant's article about "The Ultimate, Affordable and Rider-Friendly Recumbent Bicycle", and I think that concept might be spread even farther — to your newletter! I appreciate all of your efforts to make Recumbent Cyclist News a financially viable publication, and making it a "rider-friendly" publication with broad appeal would make it more likely that I will renew my subscription. Your new product reviews are interesting, but really, really long! I thought the article about Actionbent Jetstream was a parody of a review at first - how many of your readers are going to buy a moderate-priced bike off the shelf and replace just about every part, almost tripling the price in the process? A few, perhaps, but enough to sustain a newsletter?

I have been a recreational cyclist since I was about four years old, have toured in France, the Rockies, most of the islands in the Northwest, have biked my neighborhoods in five states. At 54 years old, I hope to have lots more years of cycling ahead of me. I have never owned more than two bikes at a time, have never done a full tune-up, and take ol' blue (a 2006 Bacchetta Strada) down to my local bike shop for anything more serious than a flat, a dirty chain, minor cable adjustments or general tightening up.

I am not a gearhead. I just like to ride bikes. How about an article about people (like me) who had to give up on riding upright bikes due to health problems, only to discover recumbents at the Group Health-Cascade Bicycle Club Bike Expo in Seattle several years ago.

Marti Anamosa

Editor's Comments: I'm not sure what you mean by "broad appeal", but I'll take a guess: less and shorter road tests, more basic tech articles, more rider articles and more how to ride longer and more difficult courses. I've placed these on our to do list for the future. As for the Jetstream article, it was real — not a parody. The author had not planned to spend that much money on the bike.

RCN AS A MENTOR

I just sold my BikeE RX, which had nearly 10,000 miles on it after five years. The drivetrain was worn to the point where it needed about \$500 of work. It served me well as a commuter - very comfortable and reliable overall, but I knew I wanted more performance and quality. Thanks to RCN I knew Bacchetta and RANs machines really interested me. My local dealer has a token recumbent inventory of maybe three bikes, happened to have a recumbent sale -25% off. I had my eye on the Giro26, and also tried an Aero and a Corsa. The Giro26 had the big front wheel, and seemed rather cumbersome for handling and I had lots of heel strike with the front wheel. The crank set also seemed too high for my comfort. The Aero was an easy ride and neat to try.

I then tried the Corsa, thinking this would never be the bike for me as a commuter. Man, was I surprised and wrong! The comfort was extraordinarily good, far better than with the old BikeE RX — must be that comfy laid back seat with the thick cushion. It has the *tweener bars* which also surprised me for the natural relaxed arm comfort they afforded me. The crank height actually is (or seems) lower and easier to use than the big wheel Giro for me. And as you know, this machine is a rocketship! WOW!

My eight mile commute requires me to stop or slow down two times on average, so I'm not at all troubled with restarts, and I ride before rush hour both in the AM and PM. I'm amazed how happy I am with a performance bike as a commuter. The bike is equipped with a kickstand, a rear rack, my old BikeE bag, Power Grips pedal straps, mirrors, head and tail lights.

It's through my RCN subscription for about eight years, that I felt confident in the Bacchetta brand and their quality. Thank you for being my recumbent teacher and mentor!

Richard A. Sloane

SAT'RDAY & RIDER-FRIENDLY COMMENTS

I read with interest RCN's Sat'RDay review (RCN 099). I was not surprised to find the bike had many minor prototype like problems and some major problems like the flexing boom causing paint to rub off. When I first saw the initial photo of the bike I knew right away it would have a lot of boom flex. It does not surprise me Bike Friday is still selling basically prototypes to paying beta testers, not paying attention to details, dealing poorly with customer feedback and providing poor documentation and instructions with their bikes. My gut feeling was correct that although this bike seems like a big improvement over the original Sat'RDay I still shouldn't buy one. Too bad there aren't any other players in the compact fold two wheeled recumbent market. HP Velotechnik could do a good job at if they chose to do a Grasshopper FX.

I liked your article The Ultimate, Affordable and Rider-Friendly Recumbent Bicycle. It does seem like 16/20 has some potential for this type of bike because BikeEs and EZ-1s have sold well and many potential customers find the length of a full on LWB a turn off in terms of transport and storage. I think a less expensive version of the Spirit without front suspension would fit your bill.

It is too bad no one is doing 16" front wheeled SWB bikes any more. With the better 305 mm tyres out there now like the 50-305 Big Apples, 40-305 Comet and 40-305 Kenda Kwest it seems like 305 mm front wheeled SWB bikes would be viable. With that size front wheel the BB could be lower than the seat and the bike would still be very compact and have good weight distribution.

The 305 mm front wheel on my Sunset lowracer has been working very well now that I have a good tyre for it (Comet Kevlar 40-305 with reflective stripe). I'd like to have a dual 305 full suspension quick fold recumbent.

Zach Kaplan

Editor's Comments: Be sure to check out Zach's article, Why Recumbents Need Fat Tires, on the RCN blog. Also note in Recumbent News that the SatRDay is no longer in production.

BIG WHEEL LWB SAFETY

I find some validity in the letter about front wheel wash-out with long wheelbase bikes. Weight distribution is key, so x-seam plays a role. Tall riders like me may find some long wheelbase bikes a little skittish, especially on loose surfaces. I once had my Infinity wash out during a switch back on clean concrete. I have never felt completely confident in sharp turns on any long wheelbase, so I use caution. I am especially concerned about high bottom bracket long wheelbase bikes that force the rider to recline and further bias the weight to the rear. When I sold bikes, I generally tried to match shorter riders to long wheelbase, and taller to short wheelbase, when possible.

Tom Beuligmann

ICE T SUSPENSION

I noticed an error in the review article of the 2006 Trice T. In the Suspension paragraph on page 11. It states that the elastomers used are the same as that used on the Birdy Folding Bike. In fact I have tried substituting them, and they are different; however you have to hold the two types of elastomers next to each other to notice the difference. The elastomers are the same shape and diameter, but 1/4" shorter. The bike may still be rideable with the Birdy elastomer, but I doubt that the suspension would be effective with the greater resistance of the elastomer form the increased thickness, nor may the Trice be safe with the suspension pushed down from the larger elastomer.

David Whiteman

COMFORT OVER SPEED

When I first became interested in recumbent bikes, I was totally taken in by the talk of SPEED. I bought a recumbent, joined the local bike club, and rode with the faster rider groups. At the time I thought this was the way to go. I also got in the habit of not letting upright bikes pass me without my catching up to them, and passing them — even knowing I'd pay the price of struggling to get my wind back and to breathe normally again. As a result of this type of riding, I blew out my knees - eventually requiring surgery. These days I'm interested, not ins speed, but in total comfort. I don't push high gears anymore, I shift down when sending the first pressure on my knees and I spin. This is working out very well and I'm back enjoying the comfortable attributes of recumbent bicycling.

Don in Florida

Editor's Comments: I ride cautiously to not aggravate my "biker's knees" and I do yoga daily. This is also why I tirelessly promote lower gearing on recumbents.

LOWRACER RESPECT

I like your magazine, but sometimes you drive me crazy! For the record, I'd like to know that lowracers do exist and are enjoyed by many recumbent riders. They are not merely short wheelbase recumbents. When you qualify the meaning of the word "recumbent" by saying, "we don't actually ride lying down . . ." — I beg to differ! Best of luck with the magazine and future of print.

David Duennebier

Editor's Comments: If you are referring to RCN 098 page 11, then I will tell you that your criticism is valid. This omission was not meant as a disrespect to lowracer riders, but more of a poorly thought out edit for space. That said, lowracers test bikes are very difficult to obtain. No lowracer test bikes have materialized here in the past 16 years. We have published a few, reviews, including: Dan Duchaine Low Phat article (see April blog archive), a Reynolds article and an HP Velo Speed Machine test (RCN 094). If you feel passionately that lowracer riders deserve more respect, please, by all means, write an overview article for RCN.

OUTFITTING FOR WET WEATHER

I am a female cyclist who for years toured on an upright Cannondale T600. On entering my 70's I needed more comfort and found a used Easy Racers Tour Easy. I love this bike, despite having to walk up a few hills! However, there are some minor problems.

The other day it started to rain when I was 20 km from home. I had a rainproof jacket, plus I put a plastic bag over the Cobra seat back.

Letters . . . continued on page 19





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www.gstrikes.com

Catrike Expedition . . . Continued from page 1









Expedition." The rest of the equation is just basic recumbent design theory. The Expedition is a bit wider, has a longer wheelbase and a larger rear wheel and much fatter tires. The end result is a more stable Catrike.

Bob: Catrikes have stiff trussed rear frames and aluminum generally rides stiffer than steel. The Expedition also has a 26" rear wheel — which is a bit more shock absorbent than the smaller wheels. Tire choice can also smooth out the ride.

PERFORMANCE: Larry: With its stock granny of 24", some of the steeper hills in my part of the country are a chore, especially early in the season. The top gear of 124", though, coupled with the surprisingly smooth-rolling Big Apples and the recline angle of 37 degrees, results in a top speed on the flats that I wasn't expecting.

The Expedition seems faster than my previous Road. It may be partly due to the seat recline angle, as well as the "recumbent placebo factor" (a faster bike is supposed to go faster). The higher gearing definitely helps on the flats — I sometimes felt I was running out of gears on the Road with its 20" drive wheel.

FRAME: Bob: Like all Catrikes, the frame is TIG-welded with a proprietary aluminum tube-set by Catrike in Florida. We've found that all of our recent Catrikes are beautifully made and the Expedition is no exception. There are two standard colors, plus optional colors, neons and sparkle powdercoats. A new Catrike update for 2007 is the slotted boom that keeps the boom and crankset perfectly vertical for when you adjust it. This is an attribute that is a long time in coming and should set an industry standard for all recumbents with sliding booms.

Larry: The build quality of the Expedition is what I have come to expect from Catrike: excellent. The welds are clean, the paint is flawless, and the overall impression is that here is a trike that has been built with care.

STEERING: Bob: The Expedition has the trademark Catrike direct steering. Each independent handlebar is individually mounted on top of cartridge-sealed bearing kingpin headsets. Catrike has done wonders with direct steering — it is sporty, light and refined feeling.

COMPONENTS: Larry: The components are of good quality, hitting that sweet spot of being affordable while not being cheap.

Bob: I especially like the use of bar-end shifters and the care taken with the hand-built wheels.

If you don't like Catrike specs, most models

Photo Captions

- (top) New double quick relases boom adjuster.
- New Peace Boom with track to keep centered — bravo on this one!
 New head/neck rest
 - 4. (bottom) Fastback frame bag

are sold as a rolling chassis so you can add your own parts.

GEARING: Bob: The stock gearing is set up for sport riding. Basically, I wouldn't want to tour on this trike without a gearing makeover. The Expedition has a 30/42/52 road triple combined with an 11-32 9-speed cassette making for a gear range of approximately 24-124 (with the 26" drive wheel). In contrast, the 20" drive wheel on the sportier Road model provides a gear range of 18-90 — which worked perfect in my hilly terrain. If you ride mostly flat terrain with small rolling hills there is no problem.

You can widen the stock gear range by having your dealer swap out the small chainring for a 24-tooth, the middle for a 39-tooth and the cassette with a wider 11-34, making for a gear range of 18-123 gear-inches.

Some dealers are offering Catrikes with Schlumpf (2-speed bottom bracket) and Rohl-off (14-speed internal hub) gearing.

CHAIN MANAGEMENT: Larry: The chain runs through a pair of tubes that, while not absolutely silent, are still quiet enough to be not noticeable after a few miles. I have yet to destroy an idler on a Catrike, perhaps due to both the chainlines and the quality of the idlers themselves.

Bob: Just before press time it was announced that the Expedition will come with TerraCycles idlers stock.

BRAKES: Bob: What's not to love about Avid BB7 discs? These are sweet and strong mechanical disc brakes. You will want to be careful while piloting the Expedition down steep mountain passes with the quicker direct steering and independently operated disc brakes (one front brake per lever). Careful modulation is a skill you will definitely want to master.

WHEELS: Bob: The wheels are hand-built with Catrike cartridge-sealed bearing hubs, laced to 32° Sun CR18 double-wall rims. Catrike's Paulo Camasmie writes, "We build some of the wheels here, some we buy. All are checked and inspected 100% — tensioned and trued if needed. We recommend to that our dealers do the same (to compensate for any shipping vibration)."

Larry: I always do a quick spin of the wheels of my review trikes and bikes, and sometimes they need truing. In the case of Expedition, the wheels were about as true as it would be possible to get them.

TIRES: Larry: I prefer having just one tire/ tube to worry about toting with me on tours — which is a detractor on the 26"/20" Expedition.

Our test trike came with soft riding Schwalbe Big Apple tires. However, Catrike now specs the narrower Schwalbe Racers (1.5" 50-85 psi).

The Big Apples do get your hands pretty close to the tires, if you're not running with fenders. Schwalbe Racers would be my second choice.



ACCESSORIES: Bob: All Catrikes come with left mirror, computer sensor mount, and multi-purpose pedals, flag and mount. An Old Man Mountain White Rock rear rack will fit and new fender mounts are in the works. Arkel is designing a special bag for this trike.

VALUE/RESALE: Larry: The resale value of Catrikes is very high — and I should know, because I have bought and eventually sold several! I expect that the Expedition will not change that. As for the closest competitor within the Catrike line, the buyer should give consideration to both the 700 (racier) and the Road (more compact).

Bob: The biggest concern in trike resale is the costly shipping.

COMPARABLES: Bob: ICE, WizWheelz and Greenspeed all build touring tadpoles with linkage steering and WizWheelz has the new direct-steered Zoomer sport trike.

As for Catrikes, if you want to go faster, go for the 700. Small wheel enthusiasts who want to go fast will love the Speed. New riders will like the new Trail. Sport tourists who want a more compact trike with just one size of wheel/tire — the Road (my favorite), and petite riders will like the lightweight Pocket.

RECOMMENDATION: Bob: Catrikes are unique. They are stiff, fast and handle like a sports car. The direct steering makes for a direct connection between rider and controls. It can be intuitive, but may also be overwhelming for a casual touring oriented rider in some conditions (say hilly rough roads). The Expedition is perhaps the smoothest and most stable of the Catrikes. It is also very cool that Catrikes are built in Florida.

One other minor criticism, we'd like to see more text, editorial and commentary on the Catrike website to help buyers choose a trike. Deciphering the product line can be overwhelming

Larry: I like this trike. It is comfortable, fast, and is reasonably priced. If you want the best of both worlds — comfortable touring as well as performance — then I recommend that you give the Expedition a closer look.

LOWS: A big wheel and Schwalbe tires. Excellent components with bar-end shifters and hand-built wheels. Lots of cool colors. Even more refined for 2007. Built in Florida.

HIGHS: Gearing is too high (road triple + big wheel). Despite the name it's not designed for loaded solo touring. A more laid-back seat than the Road. Different sized tires/tubes (26" & 20") means more spares to carry.

NUMBERS: Wheelbase: 42". Seat height: 9.75". Seat recline: 37°. Bottom bracket height: 14". Ground clearance: 4.5". Weight: 36 lbs. Weight limit (rider & cargo): 275 lbs.

FIT: 39"-46" x-seam, or with long boom to 53".

FRAME & SEAT DETAILS: Frame: Heat treated aluminum. Chain idler: Catrike idler/tube. Headset: NA. Seat Back: Mesh. Seat Base: Mesh. Stem/Handlebar: Catrike direct. Color: Silver or red (other colors are +\$99, neons are +\$129 and sparkles are +\$149).



Larry Varney's daily ride.

COMPONENTS: Rear derailleur: SRAM X.7. Front derailleur: SRAM SX5. Shifters: Shimano Bar-End. Crank: Shimano Tiagra 30/42/52. Bottom bracket: Shimano Octalink. Cassette: 11-32 27-speed. Chain: SRAM. Brakes: Avid BB7 disc. Brake levers: Avid FR5. Hubs: Catrike cartridge sealed. Rims: Sun CR18. Tires: Schwalbe Marathon Racer 26"/20" x 1.5" 50-85 psi. Pedals: Not included.

POST TEST UPDATES: The new "Peace" boom is standard on all Catrike models (see photo on page 6). There is a new logo flag available. The Expedition and 700 models are equipped with TerraCycles idler wheels and there is a new front fender mount in process.

ABOUT LARRY VARNEY: I have been riding recumbents for more years than I care to think about (over two decades), and while I appreciate speed, I am more likely to buy something that can haul all my "stuff." I can't seem to go on a ride without a camera, spare batteries, maybe even a pair of binoculars. So, it was inevitable that I gravitated toward trikes, I suppose. I am currently Co-Editor of www.bentrideronline.com, and enjoy all bicycles, uprights as well as recumbents, but trikes have become my personal favorite mode of transportation. ◆

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Reader Test: The Calfee Stiletto

BIKE: Stiletto BUILDER: Calfee PRICE: \$5,000 - \$6,000 STYLE: Long wheelbase

CONTACT: www.calfeedesign.com

By Robert Long

he Calfee Stiletto is the best recumbent bicycle I have ever owned or ridden. My wife and I love this bike. I dislike using the word "love" when describing inanimate objects, but this bike is REALLY nice. There is currently no other bicycle I am interested in owning or riding.

I am 58 years old, and have been riding recumbents for more than 10 years. My previous bikes included a RANS V2 and a RANS Stratus, and my wife and I ride a RANS Screamer tandem. My wife had a RANS Stratus, but now she rides a Stiletto, too (we have two!).

I ordered a Calfee Stiletto in November 2003. At that time I dealt with Easy Racers' Fast Freddy Markham, who was part of the Calfee Team. After he left Calfee I corresponded with Craig Calfee. Both Freddy and Craig treated me with the utmost professionalism, courtesy and honesty. They patiently answered all my questions.

USE: The Stiletto is a performance bike. I use my Stiletto for recreational rides, time trials and organized and supported charity rides. It is fast on both hilly terrain and flat land, which is wonderful when riding with upright bike riders. In addition to its ability to go fast, it handles great at slow speeds.

SEAT: Calfee uses a modified version of the RANS Zephyr seat. The seat back on the Calfee version is six inches shorter than the one RANS uses on its bikes. This saves weight, but it has two drawbacks. First, there is no lumbar support and second, the Zephyr seat bag rubs against the rear tire and requires modification to use.

I have since replaced the Calfee short back seat with a redesigned RANS Zephyr seat. I added two inches of foam between the seat base and the seat cover because I started getting *recumbent butt* after about 20 miles. Comfort for me is now at a perfect level.

The seat back on the Stiletto is fairly upright, which is similar to the RANS Stratus and most LWBs. This provides a great view of the road and allows me to push against my seat back for extra power. The low bottom bracket allows my feet to reach the ground easily, which makes stopping a nonevent.

RIDE: The ride is outstanding. Craig Calfee has done an excellent job of eliminating the tiller effect associated with long wheelbase recumbents. His steering design makes the bike very stable at both high speeds (greater than 40 mph) and low speeds (less than 6 mph). The



carbon fiber absorbs vibration. Hence, the ride is comfortable; the road-feel and handling are excellent.

The Stiletto is outstanding in traffic, especially at controlled intersections. When a traffic light changes to green, I am usually 20-30 feet ahead of the other cyclists (both short wheelbase and uprights) by the time they get across the intersection. In my opinion, the Stiletto handles much better in traffic than either a short wheelbase or an upright.

PERFORMANCE: I am faster climbing hills on the Stiletto than I was on either the Stratus or the V2. I monitor my speed going up hills and have speed goals for going up several hills. The Stiletto is 2+ mph faster going up hills than my Stratus, which was 2+ mph faster than the V2. For example, one hill that I climbed at 12 mph on my RANS Stratus dropped to 10 mph on the V2, but increased to nearly 15 mph on the Stiletto. The Stiletto is more than 10 pounds lighter than either the Stratus or V2 (with fairing and other attachments), which is one reason it climbs hills easier and faster.

The Stratus and V2 are both nice bikes, and I enjoyed riding both of them. I "upgraded" to the V2 because I wanted a faster bike. I assumed the higher bottom bracket would improve my hill climbing. Neither was the case for me. My only complaint with the V2 was it climbed hills like a one-legged dog (very slowly). The Stiletto does not appear to be any faster downhill than either the Stratus or the V2. However, I feel the Stiletto is faster on flat terrain as well as on hills.

One of my friends rides short wheelbase recumbents. When I rode my Stratus he was unable to keep up with me. He owned several short wheelbase recumbents — a RANS Rocket, a V-Rex, a Lightning P-38 and finally a Bacchetta Aero. I could not keep up with him on the Aero

with my V2. My ego was devastated. Now with the Stiletto I am now 2-3 mph faster than he is up hill. Life is good again! He may be faster on level ground or down hill, but I won't admit it

FRAME: The Stiletto frame is carbon fiber with titanium drops. The detail and craftsmanship are superb.

WEIGHT: The Stiletto is very light for a LWB. My Stiletto weighs 24 pounds with no accessories. It weighs a little less than 30 pounds with my Carbon Fiber DB fairing/mounts, RANS Zephyr seat bag, two mirrors, Garmin computer and heart rate monitor. My wife's Stiletto (two sizes smaller) weighs 28 pounds. She has the lighter fairing and the modified RANS Zephyr seat.

STEERING: The remote linkage steering on the Stiletto eliminates tiller effect. The handlebar turns more like a road bike. It does not swing from side to side like the Stratus, V2 or other LWB models. The design is similar to linkage under-seat steering designs.

The Stiletto uses a telescoping, hinged foldforward steering riser that can be adjusted both horizontally and vertically. The handlebars are slightly bent aluminum bars. The steering design of the Stiletto provides a much better feel for the road and improves stability at all speeds. The steering was one of the main reasons my wife really likes the Stiletto.

COMPONENTS: This bike has a mix of very high-end components. Most of it has worked well, but we did end up having some difficulties:

- 1. My Stiletto has a 175 mm crank which can hit the front tire on turns. Most of the time, this is not a problem. I would recommend using crank arms of 170 mm or less.
- 2. We had our local bike shop build the bikes because we did not want twist grip shifters on

these bikes. On my previous bikes, I have upgraded to better shifters six times and none of the five shops I tried were able to adjust the shifters properly. We have successfully used Shimano Rapid Fire shifters for more several years now and we're not willing to go back to twist grip shifters.

3. I ordered the Aero fork, which created front wheel fit problems, so the bike has a mixed wheel set.

GEARING: My Stiletto has a 30/39/53 triple crank set and an 11-32 9-speed cassette. My gear-inch range is from 25-130 gear-inches.

CHAIN MANAGEMENT: The Stiletto does not use idlers. I understand this was done to save weight. There is some chain slap and it does mar the finish.

RECOMMENDATION: The Stiletto is an excellent long wheelbase. The quality and craftsmanship were the first two things I noticed when I saw the Stiletto. Calfee designs and builds beautiful bikes. The improved performance and handling I experienced when riding the Stiletto enhanced my opinion even more. The design is well thought out, and the finishing touches are superb. It's light weight, so hill climbing performance will improve. For me it is definitely worth the \$5,000+ cost.

HIGHS: Superb fit and finish. Remote steering is excellent (no tiller). Fast climber. Very light. RANS Zephyr seat.

LOWS: Cost. Fairing mounts need work. Skinny tires only. Calfee modified RANS Zephyr short back seat. Twist grip shifters.

NUMBERS: Wheelbase: 66.5" (Size M/L). Seat height: 20". Bottom bracket height: 12.5". Weight: 24 lbs. (factory weight/no options). **FIT**: 35"-48" M/L. Several frame sizes.

FRAME & SEAT DETAILS: Frame: Carbon fiber with titanium drop outs. Fork: Carbon fiber with titanium drop outs. Chain idler: None. Seat Back: Aluminum frame with mesh seat. Seat Base: Foam with Lycra cover. Handlebar: Aluminum. Stem: Aluminum. Color: Many choices, mine is emerald green.

COMPONENTS: Rear derailleur: Shimano XTR. Front derailleur: Shimano 105. Shifters: Shimano 660. Crank: FSA Carbon Pro Team 30/39/53 triple crank. Bottom bracket: Ultegra. Cassette: Shimano XT 11-32 9-speed. Chain: SRAM PC 59. Brakes: Dura Ace. Brake levers: Shimano V Brake. Front hub: Phil Wood. Rear hub: Velocity Spartacus Pro Hub (Shimano). Front Wheel: Velocity Aero 451mm. Rear Wheel: Velocity Uriel 700c. Front Tire: Schwalbe Stelvio 451x28c. Rear Tire: Schwalbe Stelvio 700x23c. Pedals: Ritchey Pro Micro.

FAIRING NOTES

All of our recumbents, except the RANS Screamer, were equipped with fairings. My wife's fairing is all carbon fiber. I have the Carbon Fiber Double Bubble which has a small clear motorcycle windshield at the top of the fairing. The carbon fiber portions of the fairings are opaque. Surprisingly, we had no difficulty adjusting to a fairing we could not see through. We both had clear lexan fairings on our previous recumbents.

The Calfee Carbon Fiber fairing my wife uses is very light. It weighs less than half of a lexan fairing. My fairing is a bit heavier, but still lighter than my previous fairings.

I rode the 13.6 mile weekly time trial for one season before I got a fairing for my Stiletto. After I got the fairing, my best time improved 8% (from 41:30 to 38:12; from 19.7 mph to 21.4 mph). My best time on the Stiletto without the fairing was the same as my best time on the V2 with a fairing. I never rode the Stratus on the time trials.

Craig Calfee was very upfront about the fact that the fairing mounts are still under development. He informed me the hardware was not perfected yet, and I would have to use my own creativity.

I purchased Easy Racers Top Crossbar Mounts, which I attached to the top of the handlebar stem. I use RANS fairing support mount brackets (T-bars). These are attached to the top tube, directly behind the steering tube. Since my design is attached to the frame, the front of the fairing does not move when I turn the handlebars. I went through several iterations before I got the fairing attached to my satisfaction. My only complaint about the fairing is the hardware. I would like the fairing mounts to be integrated into the bike. My mounts work great, but they do not have the professional quality or aesthetic appearance I associate with a Calfee bike. ◆

Captions Top right: Calfee fairing Right: Calfee linkage steering







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By Alan Barnard and Bob Bryant

lan: Easy Racers is the world's oldest recumbent manufacturer with a long tradition of building finely crafted, smartly designed bicycles at their factory in Freedom, CA. Founder Gardner Martin designed and built his first recumbent in 1975 and in 1978 he teamed up with Fast Freddy Markham to create the winningest racing partnership in HPV history. The lessons they learned on the race track were applied to their production bikes, the Tour Easy, Gold Rush Replica, the Fold Rush, and the Ti Rush. Easy Racerss' faithful followers are a testament to the success of Gardner's designs. In 2006 the company was purchased by Fast Freddy (along with his business partner Denton Coetzee) and this year they brought to market the first addition to Easy Racers' domestic line-up in over 10 years — the Javelin.

Until now, all ER models were variations on the same theme: long wheelbase, low bottom bracket bikes with triangulated frames, designed to place the rider upright and close-in behind the fairing for aerodynamic efficiency and ease of use. The Javelin is a dramatic departure from this original design and uses a mono-tube frame comprised of a single, oversize 4130 ChroMoly tube that runs from the headset to behind the seat where it attaches to the rear triangle. The bottom bracket position is nearly 10" higher than previous Easy Racers' designs.

The Javelin comes in Expedition (EX) or Speed and Sport (SS) configuration. Our test bike was an SS — skinny tire (451 mm front

USE: Bob: While the Javelin can be used for almost any purpose, it is really a sport bike for fast day rides.

COMFORT: Alan: The Javelin comes stock with the Easy Racers "Cobra" hard shell seat. The seat base is generously padded and I had no issues with recumbent butt. Because the seat back is rigid, I found the Cobra to be less comfortable than mesh back "Koolback" seat. The Javelin is currently available with the Cobra seat, but Easy Racers is reportedly working on a mount to adapt the Koolback.

Bob: The Cobra seat is well-made and is excellent for power generation, yet it isn't known as super-comfortable seat. The Koolback became the most popular seat when it was introduced, though the Cobra's usually makes the bike faster.

The Javelin's seat mount is completely different from anything we've seen from Easy



The Javelin - Alan Barnard

Racers before. It is very similar to the Volae seat with side-plates that hang down underneath the seat base with quick-release bolts going through the main tube.

ERGONOMICS: Alan: Depending on a person's physical proportions, the Javelin's combination of high bottom bracket and low-tiller steering may place a rider in a somewhat closed position. My hip/torso angle on this bike is approximately 5 degrees tighter than on my Tour Easy. I tried adjusting the bars back further to allow more seat recline, but then I had knee interference. For those with proportionally longer torsos and arms this won't be an issue at all. And if you have my build and prefer a closed hip angle, you'll love this bike.

Bob: The Javelin has a frame geometry similar to the famed Tour Easy, but with a radically different high pedal riding position. The higher pedals also moves the rider and the center-of-gravity rearward on the bike. Long wheelbase with higher pedals tend to fit medium height riders better than taller riders who may have to do a *Superman* reach to the bars. We have found this trait common in most of the long wheelbases with high pedals.

STEERING: Alan: The steering riser is adjustable for both angle and height. The angle adjustment is ratcheted; for most people there are only three or four positions that would be of practical use. A mechanism that allows finer adjustments would be a benefit. The bars are swept back and relatively narrow — they place the arms in what appears to be an efficient, aerodynamic position. Their width and wrist position angle are reminiscent of the bars on other Easy Racers models.

RIDE: Alan: The Javelin differs from the Tour Easy in frame stiffness. All Easy Racers frames prior to the Javelin were triangulated and provided a relatively stiff ride. This frame

stiffness contributes to power production and efficiency but can be just a little harsh at times (the wider tire EX version may tame this a bit). The Javelin's mono-tube frame is more flexible and visibly deflects when I sit on it. There is also a bit of visible flex right at the riser/fork steerer junction. This frame flex makes for a smooth ride on the road; at times you can feel the frame actively absorbing road shock. The down side is that in rough corners the frame sometimes bobs a little. At my 145 lbs. the amount of flex is completely manageable, but if you're closer to 200 lbs. you may want to take a long test ride to be sure it works for you.

PERFORMANCE: Alan: The Javelin is arguably the fastest Easy Racers model without a fairing — and providing you can adapt to the closed riding position. The improved aerodynamics created by the higher bottom bracket are a boon for those that want an Easy Racers but prefer to ride without a fairing. On a regular course I've been riding for over a year, the unfaired Javelin consistently posted slightly slower times than my Tour Easy with a front fairing. According to Freddy, fairings will not work for all riders on this bike due to the potential toe interference. The Mueller Windwrap is a viable alternative that provides ample clearance.

Bob: Few recumbents can touch a Tour Easy, Gold Rush or Ti Rush with a fairing and body sock. These options were designed for the bike and integrate well. So the ultimate performance will depend on whether you plan to use a fairing or not.

FIT & FINISH: Frame: Bob: The frame is TIG welded in California of 4130 ChroMolywith a triangulated rear frame and a mono-tube front section. This model comes in three sizes, fitting x-seams of 33"-47".

Alan: The TIG welds are clean and appear

to be of equal quality to those on the Tour Easy. The red powder coat on my test bike is functional if not spectacular; it should be durable and serve its purpose well.

Fork: Bob: The fork is an Easy Racers designed imported Spinner form, the same one that is used on the Tour Easy.

Weight: Alan: Our large size test bike weighs 27.5 pounds.

COMPONENTS: Alan: The components are a typical mix of SRAM, Shimano, and a bit of Tektro; nothing Earth shattering, but pretty much what you'd expect on a bike at this price point.

Bob: If you order direct, be sure to ask questions about the component spec of your bike. We're not really sure what the differences are between the \$1395 and \$1595 versions.

GEARING: Bob: Easy Racers offers either a 26/42/52 triple on the SS (21-128 gear inches) and a 24/36/46 on the EX (19-113 gear inches). The Easy Racers gear-inch numbers are higher because they use a 700c (27-28" diameter) rear wheel instead of the more common 26" mountain bike size (25.5-26" diameter) rear wheel. Easy Racers likes to use long crank-arms, so check what your bike is coming with: 170 mm are a good choice for a medium-tall rider.

CHAIN MANAGEMENT: Alan: The Javelin has a relatively clean chain path that runs through a single over-under (x-path) idler. The idler makes more noise than the direct chain line as found on other Easy Racers models, but is not unusually loud for this type of arrangement. I had a problem with the chain grazing the seat mount in certain gear combinations, but the issue was easily solved by inserting a small spacer on the idler shaft. I've been told the issue is being resolved at the factory and newer bikes should not have the problem.

Bob: The Javelin's chain management doesn't spring the chain as much as the recently discontinued Easy Racers double pulley rear derailleur idler. Similar x-path idlers can be found on Bacchetta and former Burley bents.

BRAKES: Bob: The SS model comes with a linear (V-) brake in the rear and a dual pivot side-pull in the front.

WHEELS: Bob: Historically, Easy Racers wheels have been pretty decent with minimal problems. More importantly you'll need to carefully consider wheel and tire sized choices. Both the EX and SS come with 700c rear wheels and a variety of tire sizes will fit. The front wheels do vary. The EX has the more common 406 mm 20" BMX size, and the SS has the more rare 451 mm size. You are limited to just a few tire sizes with the 451. In theory, the 451 offers slightly better performance, but this is probably not enough reason for most riders. If you do go with the 451, keep a spare tire around.

TIRES: Bob: The tires are a mixed set of a Panaracer Pacella rear an IRC Roadlite front. Both are decent tires, but it would be nice to get a matched set. The one set that is available is



The rear triangle/main tube joint Alan Barnard



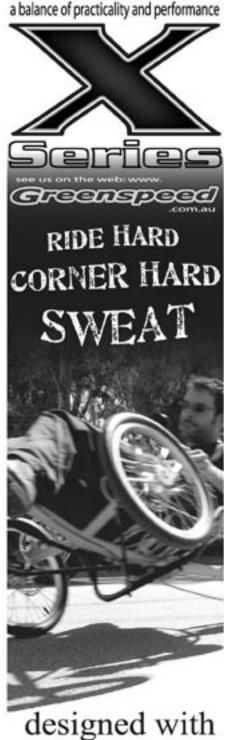
Forward frame section and adjustable stem — Alan Barnard



The quick-release seat slider Alan Barnard



The main-tube. Note the much higher bottom bracket — Alan Barnard



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the Schwalbe Stelvio. There are more choices if you opt for the EX's 406 mm front wheel.

Panaracers Pasela's are excellent tires. We have run them on upright road bikes in 28, 32 and 35 mm (I prefer the 32 and 35). For years I rode with a 451 Roadlite - until I had an unexpected blowout on a state highway. The tube exploded and blew a hole in the side of the tire. Luckily, my old pal Kent Peterson was with me and he had duct tape. We patched up the tire, installed my new tube and I made it home. The repair held for months, but that was my last ride on a 451 mm (the wheel/tire sat in the garage). The IRC is a fine tire, but a skinny performance tire. I had just this one problem in many years of riding, but the result led to a significant change in my personal cycling - I now ride with fatter tires.

UPGRADES/ACCESSORIES: There are no special Javelin-specific accessories at this time. A fairing may or may not fit.

COMPARABLES: Bob: It's a high bottom bracket sporty LWB to compete with the RANS V2/F26, Bacchetta Agio and, the new Sun Tomahawk — which is the same design (see additional Tomahakw comments). The V2 and Agio are sure bets. The Javelin and Tomahawk are the new kids on the block. There is no doubt that the V2/F26 and Agio are more robust bicycles.

RECOMMENDATION: Bob: The Tour Easy is a tough act to follow. In the old days, you paid Gardner Martin for a dose of the *magic bike dust* and you were made to feel very special and loved your bike. Times have changed. There is more competition in the marketplace and some of Easy Racers' *legendary* status has lost some of its luster. The Javelin also has the much less expensive Sun Tomahawk overshadowing it. Easy Racers bikes have always been known as robust all-around recumbents. The rider-friendly position attracted many XL-sized riders who loved both the durability and go-fast-ability the bike offered. If this is you, the Javelin may *NOT* be your best choice.

Alan: I think Easy Racers has hit the mark with the Javelin; there is plenty that will appeal to long-time Easy Racers fans, yet the design is just different enough that it will appeal to those



The Tour Easy and Javelin compared
Alan Barnard

who can't relate to the original Easy Racers concept. The higher bottom bracket will appeal to those who suffer from recumbent butt on more upright designs and the simplicity of the mono-tube frame will appeal to those that prefer a cleaner, more modern look. Most importantly, it's a fun bike: light and agile with predictable handling and great performance, all in a reasonably priced package. And, it's an Easy Racer!

HIGHS: A more affordable Easy Racer. First new model in years. Relatively fast without a fairing.

LOWS: More rearward c.g. than a Tour Easy. Odd design. Some dated parts. Closed position (and high pedals) may not appeal to everyone. Not as stiff as other Easy Racers models. Odd marketing and PR.

NUMBERS: Wheelbase: 71.5" Seat height: 21.5". Bottom bracket height: 23.5". Weight: 27.5 lbs. (Alan's digital scale). Weight limit: 225 lbs.

FIT: 33"-47" x-seam.

FRAME & SEAT DETAILS: Frame: 4130 ChroMoly. Fork: Spinner ChroMoly. Chain idler: Skate wheel type/X-path. Headset: N.A. Seat: Easy Racers Cobra Carbon shell + foam. Handlebar: Easy Racers alloy. Stem: ER. Color: powdercoat blue, orange, red, white or black.

COMPONENTS: Rear derailleur: Shimano 105. Front derailleur: Shimano Deore XT. Shifters: SRAM Rocket (ours came with At-

tack). Crank: Easy Racers/Sugino 170 mm 26/42/52. Bottom bracket: Shimano sealed. Cassette: 11-34 27-speed. Chain: SRAM. Brake rear: Avid SD5. Brake front: Tektro dual pivot sidepull (SS model). Hubs: Shimano LX. Rims: Sun CR18. Tire rear: Panaracer Pasella 700c x 28 mm. Tire front: IRC Roadlite 20" 451 mm x 28 mm. Pedals: N.A.

SPECIAL THANKS: The Javelin used for this review was supplied by Gold Country Cyclery in Shingle Springs, CA. www.tandems-recumbents.com. We'd also like to offer a very special *THANK YOU* to Alan Barnard of *The Recumbent Blog*. This review could not have happened without Alan's help. Visit his blog at www.recumbentblog.com. ◆



THE \$999 TOMAHAWK: As we were doing the final editing for this article, the latest Sun catalog arrived with information on the new Tomahawk. This Sun model is basically the same design as the Javelin — but is built overseas and using an updated Sun mesh back seat and sells for just \$999 retail. The Tomahawk specs include a ChroMoly frame (2" dia. main tube)/fork, SRAM SX4 drivetrain, alloy triple crank, Formula hubs, Avid SD3 Linear and a front U-brake, 700c/451mm 20" with matching Kenda Kwest tires. The bike has a 225 lb. weight limit and should be available now.



The Challenge Trike

Trike: Challenge Trike E-XT Concept

Type: Tadpole, direct steering

Price: \$3499+

Contact: www.challengebikes.com Owner/Location: Jay Singer

Where I Ride: Chagrin River Valley, Ohio

Miles Ridden: 500 as 5/10/07 **Dealer**: Recumbent Bike Riders

By: "BentJay" Singer, JSingerFam@aol.com

"Feed your imagination, ride your Challenge."

Then I saw an early photo of the Challenge trike last Fall I was smitten with trike lust. This is my third tadpole trike. I've owned a 2002 Greenspeed GTO and a 2005 Catrike Road. The Road was quite satisfactory and met most of my expectations, until I saw the Challenge. Even though the trike breaks some of my rules: i.e. It has two different sized wheels/tires, and it has custom parts (like the front hubs and brake levers,) — it didn't matter! Even though I'm not relishing having to someday thread replacements for the internally routed derailleur cables and housing it didn't matter! Like an exotic Italian sports car, one must yield to the passion! My trike is Serial #023 and is named LeBron. Get it (LeBron James)?

USE: I generally ride 20-40 day rides and self-supported long-distance touring. There Is nothing Inherent In the design of the Challenge that would preclude any style of riding. For those that want a more reclined seat, the option of 33-37 degrees is available. For those who need a wall climbing low gear, the SRAM DualDrive 3-speed rear hub is a no cost option. For those who want to carry four panniers, a custom Challenge rack Is available. A smaller custom rack Is available for a trunk. Although obviously folding isn't an option, the trike seat Is held on by four allen bolts, and the wheels are easily removable. This wouldn't be a good choice for packing up in your Mini! It fits easily into my PT Cruiser.

COMFORT: I was initially worried that I wouldn't adapt to a hard shell seat but the fiberglass shell seat is very comfortable. The seat angle is adjustable from 37 to 43 degrees and, for some reason I don't feel the need for a headrest. I think it's the shape of the seat because I feel support just below my neck. The Challenge seat reminds me of the wedgie Brooks B17 as it is just wide enough for support without leg Interference (17 cm). The back is just wide enough for unimpeded arm motion. The trike came with a thick, open-celled pad and a thin, closed-cell pad. So far, I am happy with the thick pad as I think it slightly raises the seat making the bottom bracket height very



comfortable. I do sweat more from my lower back than on a mesh seat. Going down Old Mill Road to the Chagrin River Valley I can easily hit 40+ mph. I don't feel any more or less secure on this seat compared to the mesh seats on my other trikes. The Challenge shell seat comes in two sizes, medium and large.

RIDE: There is no suspension but I notice *vertical* compliance that softens harsh pavement. I'm pleased with the turning radius and the height of the pedals/bottom bracket. It's not extreme at all. The riding position is very natural and comfortable. The wing-like crossmembers allow me to back up further *into* the trike and just sit down. Getting up is just as easy. The design is more rider-friendly than other tadpoles.

STEERING: The direct steering handlebars mount to the kingpins and are adjustable for length, tilt and width. The kingpins turn on three sealed cartridge bearings.

I find the direct versus indirect steering issue to be irrelevant as it relates to this trike. Challenge's Paul Voerman writes that this trike has true Ackermann steering, which probably makes it so responsive (and is rare on direct steered trikes).

PERFORMANCE: The Challenge isn't noticeably faster than my previous trikes but another owner reports 2+ mph with narrower tires. Climbing is typically slow and steady for me back up Old Mill Road at 3-4 mph spinning in the 19" gear. The trike seems to glide along silently and I can really feel a difference pushing against the hard shell seat. I'm sure more power is reaching the road. The track, at 30+ inches is wide and stable. I don't feel much pedal or brake steer, especially in comparison to the GTO. In other words, with its responsive steering, the trike has the feel of a well sorted

out sports car!

FIT & FINISH: The frame is hand built of heat-treated 7020 T6 Endurance aluminum. The welding, of which there is plenty on this frame, is neat but funky in places. The winged cross members are fabricated from flat plate aluminum and have long, straight seams (lots of welded surface). The strength of the welding is not questionable but the weld is definitely dramatic and *industrial* looking. This doesn't bother me in the least!

My trike is painted is painted the optional pearly apple green. The tasteful decals are, I believe below a clear coat and they appear robust. I don't know If It's a powder coat job or not.

According to Challenge, the trike weighs 32.6 lbs without pedals, fenders or rack.

COMPONENTS: The components are a mix of mid-grade and upper grade that all function well. The crank with Mega Exo bottom bracket and Dura Ace Bar-Ends and Shimano derail-leurs are excellent. There are special parts made specifically by Challenge for this trike, like the front hubs and brake handle.

The trike came with KMC X-9 *no stretch* 9-speed chain which works fine. I carry a master link and some spare chain just in case.

GEARING: My dealer was able to substitute a 26-tooth inner ring, which gives me a low of about 19", and was also able to adjust the chain length so every chain ring/cassette cog combination is available. High gear is around 124". That 26-tooth granny gear slightly exceeds the published capacity of the derailleurs but since I want the 19" low gear I'm willing to put up with the finicky shifting (sometimes I can't get the front shifter to drop into the granny gear).

CHAIN MANAGEMENT: The Challenge trike uses one proprietary chain idler pulley. The

chain path runs direct from the crank, under the right wing and idler, and back to the rear wheel. The return chain goes through a small section of chain tube under the idler. Owners can choose between a small or large chain tube set. My trike has the long set and it's quite extensive. The drivetrain is the quietest I've experienced on any recumbent.

BRAKES: Avid BB7 mechanical disc brakes stop the trike (BB5s are standard) well and allow one-fingered braking. The custom Challenge levers allow the cable to exit at a right angle to the handle, which means the cable run Is very short. Those levers have a neat parking brake button that works fairly well if the brakes are adjusted correctly. I've found Avid disc brakes to be at least as effective as the Hope hydraulics on the GTO and they are squeal-free.

WHEELS: The wheels have been trouble-free and haven't required any truing, but I will get them checked at break-in. The front wheels are laced with Sapim Laser spokes, radially on the outside, cross three inside. They are also *straight pull* into the custom Challenge hubs. The rear wheel is laced with Sapim Strong spokes in a conventional, 3-cross pattern.

TIRES: Schwalbe Marathons 406 1.50 front, 559x1.50 rear with a Kevlar belt. They look robust with a semi-mild tread. They'll take 100 psi but I'm running them at 90.

UPGRADES/ACCESSORIES: These prices may vary by dealer and locale. The Concept XT package includes a custom color, BB7 brakes, and carbon tie-rod system (\$340). Other upgrades include: BB7 brake upgrade (\$110). Carbon seat (\$309). Headrest (\$90). Pannier rack (\$280). Day rack (\$140). Fenders (\$130). Custom color (\$90). My trike Included the Concept XT package and custom color.

The FastBack™Double Century carries my water bladder and allows me to do without the expensive, custom rack for day trips. It's two bags that are designed to hang from the top of the hard shell seat and give clearance for the large rear wheel. Each bag Is plenty big enough for a 70 oz bladder. When I tour I plan to tow a two-wheel bicycle-touring trailer. Rob installed a Terracycle computer bracket that fits beautifully. I'm using a wireless Sigma computer.



Note "Wing" cross-members allowing easy entry/exit



Rear end mono-stays. Note "funky" welding on above two photos



Front end: note radial spokes on the front wheel, Challenge hubs and direct steering

COMPARABLES: It's hard to compare this trike to other tadpoles. There are other trikes in this price range (or lower) that have all the function of the Challenge. I bought this because

it spoke to me on an emotional level. I'll have more information about multi-day touring later this summer but since I'm not going the pannier route I don't anticipate any problems with the rear wheel being overloaded. Comparing the Challenge to my departed 2002 Greenspeed GTO and 2005 Catrike Road is difficult. The GTO and Road had indirect linkage steering, which, as I've stated was a non-issue for me. The Hope hydraulic brakes on the Greenspeed induced dramatic brake steer (no longer used). On the Road the Avid BB5 disc calipers were problematic with some inherent drag. The Challenge and Catrike Road handle similarly; each is well thought-out and refined. I don't have any experience with other trikes.

PURCHASE: The trike comes in four models, the E-XT (tested, \$3499), E-X.7 (\$3470), Rohloff (\$5550) and SL (\$NA). Shipping from the manufacturer in Europe is around \$220 at this writing and shipping from the selling dealer to you can add upwards of \$300 more (if required). The prices listed here are as of May 20, 2007. Prices can also vary depending on the current exchange rate.

RECOMMENDATION: There are so many well-thought out features that make the trike a delight to own and ride. For example, when I remove the allen bolt that holds a front wheel on, the disc brake caliper slides off the kingpin on its own keyed plate allowing easy removal of the wheel. A minor change I would make would be to change the mounting holes on the rear dropouts to threaded for allen bolts.

Challenge's Paul Voerman is very responsive via email from The Netherlands where he makes these machines using local tradesmen. He's open to suggestions and is very supportive. I'd recommend this tadpole with an exceptional rating.

I purchased this trike because I just love the style. The mono-tube frame is unique with its split rear dropouts and the unique wing-like cross members. They allow me to back further "into" the trike and just sit down. The Challenge trike possesses full functionality, yet it is also a unique, sleek, and beautiful machine.

HIGHS: A beautiful and functional machine. Many unique design attributes not found on



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"Bent Jay" Singer and his Challenge trike touring set up. Note the Quik Pak Trailer

other trikes. Excellent hard shell seat. Responsive steering. Extremely quiet drivetrain.

LOWS: Cost. The welds are funky! I do have a concern about long-term fatigue of the "wing" cross member joints, but Challenge is a respected bent builder.

NUMBERS: Wheelbase: 46". Seat Height: 10.2". BB Height: 15.7". Weight Limit: 285 lbs. Width: 30" Overall Width: 32.6" **FIT**: I'm a 44 x-seam and the boom is in about its mid-range.

COMPONENTS: Rear Derailleur: Shimano XT. Front Derailleur: Shimano Ultegra. Shifters: Shimano Dura Ace Bar End. Crank: FSA Gossamer 26/39/53. Bottom Bracket: Mega EXO. Cassette: SRAM 11-34. Chain: KMC X-9. Brakes: Avid BB7 mechanical disc. Brake Levers: custom Challenge. Front Hubs: Challenge. Rear Hub: Shimano XT disc. Rims: Velocity Aeroheat. Tires: Schwalbe Marathons with a Kevlar belt. Pedals: N/A. Those tires have a cross section of 1.50 with a mild tread pattern. I expect these to wear very well based on experience with other Schwalbe tires.

SPECIAL THANKS: To Rob Gentry of Recumbent Bike Riders In State College, PA. Rob set up this trike beautifully and finessed the gearing perfectly. He's now sold me four bents. My BikeE RX was his shop's first sale. He's a good, honest wrench and dealer. Long live, LeBron! www rbr info

We'd also like to thank Challenge dealer, Kelvin Clark of Angletech for technical support. Be sure to check out Kelvin's Challenge "first ride: trike article at his site: www.angletechcycles.com. ◆

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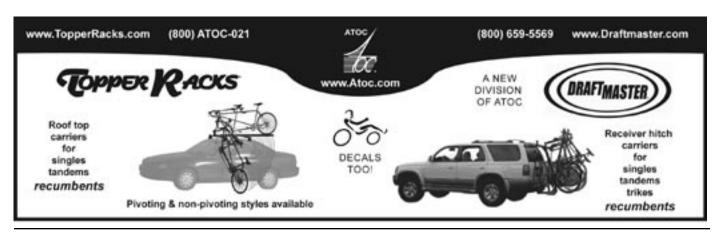
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writer. I typed in 3" columns and did hand layup on photocopied dummy pages. Photos were half-tone screens and we also used pasted in line drawings and ads. My first Mac computer arrived in 1991, but I didn't start doing the page layout until a few years later when we could afford Pagemaker. (We now use Adobe In Design.) We're still die-hard Mac users. We have five here now. My old iMac 17" is five years old. I have a Mac laptop, but I prefer the old iMac. We've never had a PC— and I honestly wouldn't know what to do with one.

My next recumbent was a LWB USS. Gene Lemle, an aircraft mechanic from Ohio was just starting his recumbent business. He wanted to send me a test bike. My Lightning Cycle Tailwind was a work of art. It had a brazed frame, a full mesh seat, a custom brass horn, a 71" wheelbase and metallic blue paint. I actually sold this bike three times and bought it back twice. The bike eventually had a custom Counterpoint mesh seat installed. I hope the current owner calls me when he decides to sell it.

By 1992 our bike sales business was doing better than our newsletter business. Keep in mind that this was pre-Internet, back when recumbent





information was rare, and RCN was on-time, lively, funky, entertaining and controversial — the accidental recumbent salesman who also published a newsletter. By publishing RCN, I was always in hot water with somebody. The fact that I sold bikes was like throwing fuel on the fire. My customers seem to like and appreciate the service we offered, because nobody else on the planet was doing what we were doing. I was a serious guru back then and people must have been jealous. Anyway, we were pressured into making a decision to give up one of the businesses, so we closed Millennium Cycle.

It was about this time in the mid 1990s that I took a new job working nights at the newspaper and ran RCN during the day. We sold a few test bikes here and there, but tried not to push the bicycle side of the business. Like other publications do now, we took most of our test bikes in trade for ads back then, so we had to sell them.

RCN was printed in a small neighborhood print shop. We paid to have layout done and we had a mailing store doing the mailing. Eventually we found bigger print house which streamlined us somewhat, but the mailing was always an issue. Third class mail is a nightmare, and first class is far too expensive. Most small magazines can't qualify for more affordable 2nd class mail.

The mid- 1990s were the heyday of the Seattle recumbent scene. We had monthly and eventually weekly recumbent rides in Renton (the Mercer Island Babka run), Redmond (trail), Tukwila (Interurban), Kent (Black Diamond Bakery) and even Seattle. Our group was strong and dedicated to hanging out and riding bents. We even made trips to Portland to ride with the Oregon HPV group, and even to HPV races in Portland and as far as Yreka, CA.

This was a great time for the Pacific Northwest recumbent scene and a great time in recumbent history. Vision was just getting started, BikeE was forming down in Corvallis, OR, and Angle Lake was getting involved with Counterpoint and finessing the Presto into a very cool SWB bike.

Down in Portland, the Oregon HPV group was hopping. They had several rides/recumbent musters through the spring and summer. Many Oregon riders were building HyperCycle-like, a 26"/16" short wheelbase recumbents. The driving force was a guy named Jerry Jacobsen. His bike was the Jerry-rig. He and his wife also ran the Oregon group, and even put on an IHPVA race in Portland back in 1990. I got a chance to meet Human Power publisher and recumbent guru, Dr. David Gordon Wilson, who has been a reader of RCN since that time.

The hot bikes of the time were the Easy Racers Tour Easy, Lightning, Infinity, Linear and Counterpoint Presto. The Hypercycle was gone, but two of the principals came back as Turner Recumbents and S&B Recumbents. Both of whom are still building bikes today. The Vision R40 was originally designed to be a better Hypercycle-like short wheelbase.

The high-performance recumbent scene was alive and well. It was the Gardner Martin and Fast Freddy of Easy Racers vs. Lightning's Tim Brummer. They even raced HPV's across the country (Lighting won). Easy Racers' Gardner Martin was one of the best supporters RCN ever had. I rode Easy Racers bikes for several years back when the Gardner and Sandra owned the company.



The 1990s was a great time for RCN. We had great articles, lots of contributors, homebuilder and tour stories and lots of test bikes. Our business was growing at an incredible rate, the phone rang off the hook, and the fax machine was humming day and night. We were certain that RCN would soon be a glossy mainstream publication — but we were wrong. We received an offer to buy RCN which involved months of negotiations, but the deal fell apart at the last minute. I learned a lot, but the experience was totally exhausting.

I had been burning the candle at both ends for many years. I finally had to quit my night job at the newspaper. I hung in too long and it took a toll on my health. I sort of crashed and burned, and left on a six month leave. And never went back. We then sold our house in Kent, WA, put everything in storage and moved to Port Townsend, WA.

During this time RCN was being printed by a commercial printer in the Seattle area. This was the dot.com boom. Every time I came in the door there were new employees. They didn't do mailing, so we had to handle that — which convinced me looking for a new printer.

The Port Townsend years have been the quiet ones. We home-schooled our kids (until 2003), walked, rode our bikes, played drums, hung out at the beach — and we ran our small magazine. While we were trying to regain our strength, the Internet came along and changed everything. We were riding on the coat-tails of the second printing of our double issue buyers' guide. While business seemed quiet at the time, it was much busier than it is today.

The dot.com bubble popped and within the last few years we've lost Huffy-ReBike, BikeE, Vision, Haluzak and others. Trek, Burley, Cannondale and now Bike Friday (see Recumbent News) also pulled the plug on their bents. There are fewer recumbent dealers, but more mainstream shops are carrying a recumbent line or two. Recumbents are definitely becoming more mainstream — though the recumbent stigma is alive and well. Recumbent trends are changing quickly. Some manufacturers report good sales, others are closing up shop. There is a decline in manufacturers and specialist dealers — and the increased number of Internet sellers.

While RCN doesn't have the corner on recumbent information that it once did, this publication has never been more refined. Our printing and mailing is being done by this great small printing company in upstate New York. They take a CD and a mailing list and we get two boxes of newsletters back.

Another interesting phenomenon is that some manufacturers don't pay any attention at all to RCN. They don't send us product information; are not interested in a road test; and they don't advertise or even read RCN! RCN is still has the largest circulation recumbent-specific publication in the world AND we also have an Internet presence. While we like reading the other magazines and web zines, nobody has the background and history in the business that we do. This history seems less and less important to many online armchair Internet enthusiasts these days — which is a very sad statement.

We still have a lot to say. I plan to continue testing recumbents as long as I can obtain test loaners from manufacturers. We've had some great articles by readers recently — but we always need more. Please consider writing for RCN. Take a look at all of the reviews in this issue. They are by recumbent riders with whom we have worked to bring even more recumbent voices to you. And all it takes is an hour or two of casual writing and a few photos. And of course, forward-thinking ready and willing manufacturers — we're ready to review your bike.

THANK YOU

I would like to take this time to thank all of our readers, advertisers, volunteers, old and new friends of RCN, and recumbent folks that we have come in contact through these many years. It has really been our pleasure to serve you as we've published RCN. We'd do it for free if we could afford to, and we'd have no problem giving it away online if there was a way. Let us know if you have an idea.

Viva Recumbency!

Bob Bryant ◆



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The Challenge Traveling Mistral

By Kelvin Clark

fter 18 months in development, the Challenge Traveling Mistral is coming to the market in 2007. We get a number of requests for a quality folding recumbent that is an excellent bicycle in its own right first, and travels easily as well. The history of the folding recumbent has delivered a design or two that will fold into a case eventually, but not deliver a bike you would enjoy riding as your primary bike, let alone travel on high mileage days once you've resurrected it from its case for a tour.

Enter the Challenge Traveling Mistral, based on the Challenge Mistral SL, a truly fine recumbent cycle. The bke has butted aluminum frame construction with an injection molded carbon fiber suspended rear end. First rate weight distribution and front end geometry already established. Three handlebar formats will be available, above-seat Preying Mantis, open cockpit (tweener) and one under-seat. The under-seat will come first by popular demand.

The seat is a fiberglass (carbon fiber optional) shell design, 5cm wider at the butt and shoulder zones than most designs with a nice concave internal shape. It adapts to different body lengths by telescoping from S, M, L, to XL, then fitted with a breathable pad. The backrest angle is adjustable, and the seat removes by quick release mounts. Quick release fittings abound for boom, riser, stem, seat, rear swingarm/shock, and front & rear wheel.

The drivetrain is a single chainring system with Schlumpf Drive 2-speed bottom bracket with an 11-34 cassette giving 18-speeds operated with a Shimano Dura Ace Bar End shifter. The chainring has a dual chainguard, and without a front derailleur system, you have no cable issues upon folding, and no need to take apart the chain. Chain management is by Challenge idler and chain tubes, which also prevent chain contact with clothing or flesh.

The braking options will be caliper, linear (V-), or disc brake. Tire selection is based on the braking option chosen; the 406 format tire widths span 28c-40c. The case is a molded, well appointed case. 33.5" x 26" x 13.5." This case has a grab handle and rollers, and weighs 20.9 pounds. The case will take the complete bike plus the trailer option, if ordered.

For touring, and taking the case with you, there is the trailer option. 16" wheels, aluminum and carbon fiber construction with push button release wheels. The case mounts in the trailer vertically, so does not stick outside of body width for better aerodynamics, and the width of the trailer keeps your profile narrower for traffic and clearance purposes.

There are details such as a draw-string chain bag, boom bag, boom alignment/memory band, head light mount, hub dynamo light wiring, disc rotor protection, and a custom CNC machined wrench for other parts.

The Traveling Mistral delivers the rapid acceleration of a 20/20 format bike. The bottom bracket height is a friendly *level to hips position*, so you get good climbing leverage as well as easy stops and starts.

Challenge cockpits represent the best of their formats. With under-seat steering, it is a linkage type design that does not over steer, the individually adjustable handlebars come out from a beautiful investment cast stainless stem, and their curved out from the bottom shape allows full lock turns without bar/leg interference, and maintains a minimal profile to the wind unlike other under-seat steering designs.

With the open cockpit (tweener) format above-seat steering, the stem angles away from you for an open feel, and the handlebars are individually adjustable for angle, to achieve a perfect hand/wrist position, and telescopic width adjustment to address shoulder width, and leg diameter.

The front-end geometry is neutral and offers rider-friendly handling. The ride is first class. In SL class hard tail bikes you get the light fast ride, but road texture is definitely present. On the Traveling Mistral when you hit a tar strip, a man-hole, or have some aggressive chip and seal road texture, you get the audio, but not the physical. ◆



Kelvin Clark and the Traveling Mistral



The bike trailer frame (unpainted prototype)



The bike packed, case open



Packed and ready to go

I put a plastic bag over the Cobra seat back. The fairing protected my legs, but the rain ran down my jacket and down the plastic bag onto the very porous seat, so that by the time I reached home it had percolated from behind to waist. Very uncomfortable, or, as you would say, #&\$%@! (Translation: "Yuck."). What do you do?

Soaked in BC

Editor's Comments: The Cobra seat is the more rare of the two Easy Racers seats and can be a total sponge when it gets wet (make every effort not to get it wet). The best choice would be to make, or have made, a waterproof seat cover. Lightfoot Cycles offers a waterproof seat cover for their similar seat base.

GOLDEN AGE OF RECUMBENTS

I was reflecting on the possible "golden age" of recumbents. It may indeed have come and gone. Some magic seems to have passed with Easy Racers' Gardner Martin (2005). However, the philosophic and concept days were pretty much gone by the mid 1990s in my estimation. Increasingly, things hardened into commercialism as more folks started to make a serious living from the construction of recumbents. I think that we romantics sensed it more acutely and I hold out for artistically lugged frames that never emerged. Oh well, I make due with high industrial TIG welds and durable mounts that have given me tens of thousands miles of trouble free cycling. Although I am well into my sixth decade of life, I still love cycling as much or more than I did when I first taught myself to ride.

Roger Fuller

HIGHRACERS - WHAT GIVES?

Firstly, let me thank you for keeping the faith all these years. As RCN is the only recumbent magazine in print, you have offered all of us who revere our slightly strange bikes an invaluable service. I continue to get info from RCN that I would not get anywhere else and I take to heart every nugget of advice, along with the

opinions and experiences, that you and your readers share. I just have one concern that I would like to address. Why do I feel that you have less regard for those of us who enjoy our more performance oriented bents versus those of us who prefer the more all purpose, traditional bents?

I have faithfully ridden my RANS V-Rex since 1997 and over the years I have added a RANS Wave and a BikeE to my stable. I love them all. All of these bikes have given and continue to give me tremendous pleasure and exercise. At the the same time, I have always longed for a really quick recumbent and I am currently having the time of my life on my high racer, a Bacchetta Corsa. I have put about 3,500 miles on this bike since I bought it about 9 months ago. I really like the skinny tires and yes, they flat out sooner than the tires on my other bikes. I like the road bike qualities of a recumbent like this. This is the closest I have gotten to riding my old Puegeot PX-10 E, albeit in a more comfortable form. I like the shared road bike parts and the fact that I can mix it up with the roadies here in Manhattan and hold my own, if not actually outpace a number of them. Speed can be a fun element of riding if one doesn't get hopelessly myopic and jerky about the whole thing. In Manhattan, I routinely receive some verbal abuse when I ride my V-Rex (something about the small front wheel seems to really cheese off New Yorkers), while the the profile of my high racer almost always elicits a positive response. Also, cars seem to respect this bike, whereas I have had some really bad moments over the years with impatient and aggressive drivers riding my other bents. I ride in real world conditions with my high racer and I can't figure out what exactly what it is about high performance bents that seems to be distasteful to you.

Whether it's a Giant Revive or the bent version of Wile E. Coyote's Acme Rocket Sled, I think all of the continually evolving recumbent designs will continue to push the envelope of what a bike can do (with comfort) and what a bike can be and maybe some day the general cycling world and public will catch up. In the meantime, may I respectfully ask what seems

to be the issue with high racers and their ilk?

Recumbently yours Steve Mack

Editor's Comments: I have nothing against performance bents for enthusiasts. RCN's road test track record speaks for itself. We covered the dual big trend before anybody else. Go to the Bacchetta website and reread my Corsa review, or our Volae Club or Giro26 reviews, all were overall positive and I wouldn't change much if I rewrote them today. We have a Volae Expedition Pro review coming up in RCN 101. If you want more highracer or lowracer stories, we're always looking for reader submissions on whatever you are into. Also see page 23.

ACTIONBENT REAL WORLD

I recently read your article "Real World test of the Actionbent Jetstream" in issue #099. The author, John Lindsey, says that the component updates were done to make the bike more durable for daily commuting. I question whether all the upgrades were necessary or were they desired by the author.

Here is my real world test of the under-seat steering Actionbent Jetstream. I was looking for a recumbent that would provide better performance than my EZ-SC at a reasonable price. After reading Bentrideronline's review I decided to purchase an Jetstream in October 2003. The only upgrade I've made to my bike was to alter the chainline to use a Burley crossover idler at the cost of \$25. My total cost of the bike was \$665 including shipping and handling. I assembled it myself in about 5 hours. The instructions were poor, but I could pretty much figure out how to assemble it on my own. Final tuning and adjustments are easier to make if you consult a good bicycle repair manual. If you are not somewhat mechanically inclined I would recommend that you have a bike shop assemble your Actionbent. Since purchasing my bike I've used it for commuting and day rides as long as 60 miles. I have a total of 3000 miles on it. Last fall the standard vinyl padded foam seat broke. Actionbent upgraded me to a fiberglass seat under warranty if I paid the cost



difference.

Aside from the broken seat and a worn out bottom bracket the bike has performed fine and exceeded my expectations. The inexpensive crankset, which came standard on the Jetstream seems lower quality than the other components, but it has held up fine under use. All the components, with exception of the crankset, are decent quality brand name parts. The SRAM X-7 rear derailleur and shifters on the Jetstream are the same components that are standard on the 2007 Bacchetta Strada I recently purchased, even though the Bacchetta costs well over twice



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as much. Is it possible that the Jetstream is currently sold with downgraded components since I purchased mine?

With all due respect, I disagree with the final sentence in the review "don't buy this bike to save money." My Jetstream has proven a worthy bike for all around use, including commuting, without upgrades. Thanks for a great magazine. I look forward to receiving each and every issue.

Michael King

Editor's Comments: Shortly after the Jetream article was published, the author's seat broke. He also pointed out to me that his powdercoat paint is fading.

SHORT CRANKS

I thought I'd put my 2 cents in about shortcranks. I've gone from 175 mm to 155 mm cranks on my Vision R40 and my speed on the level has increased by 3mph. This is with smaller chainrings. An essential ingredient is spinning, and spinning requires that your feet stay on the pedals. Which is one of several reasons I use clipless pedals. It's also possible that spinning may solve the foot numbness problem because your not crunching the nerves in your

Jason Reber

Editor's Comments: Our RCN 091 Short Cranks article is newly updated and online at our blog http://recumbentcyclist.blogspot.com (see link in the sidebar).

ENTRY LEVEL BENTS

In recent talks, Bicycle Industry advocates have said that they see an opportunity to make a push for the use of bikes for short trips (urban commuting/utility riding- ed.). They look at rising awareness of obesity as a public health issue, rising gas prices, increased traffic congestion, and concerns about global warming. They think these issues make it an ideal time to offer up bicycles as an aid in dealing with these problems, and they are willing to put money into the effort. Will they succeed? I couldn't predict.

In any case, an effort is going to be made, and I think this puts Bob's RCN 099 discussion of entry level recumbents in a new light. Even if a recumbent isn't the ideal bike for the short trip, it would be a shame if there were no recumbents available for this market. If this push gets traction and recumbents aren't there, I think they will end up even more marginalized than they already are.

I am aware that lots of 'bent riders are already happily using their bikes in this way, and that for some people, existing models will be the correct choice. Trek's John Burke claims that 50% of car trips are less than 2 miles. I suspect that most American commutes are well in excess of that, and current recumbents may be well suited for longer commutes.

But if short trips are the issue, I think it argues for the return (or refinement of) the compact long wheelbase. On the other hand, almost all of these have died off one-by-one, so I may be wrong about that. In any case, a focus on shorter trips will be made, and I think a discussion about whether or not there are appropriate recumbents is not out of order.

I think anyone involved in selling recumbents should consider that this push is going to happen, and what, if anything, is going to be their response.

John Riley

Editor's Comments: We're very excited about "bicycles for transportation movement," that is currently gaining popularity. We are finally starting to see well-equipped and affordable commuter bicycles here in the US. I'm currently trying out a Diamondback Transporter commuter bike (\$449 retail). However, it concerns us that there are so very few well equipped commuter recumbents available (are there any?). It appears that we may again miss the boat on this new trend. Currently there is very little buzz for anything recumbent in the mainstream bicycle media.

For more on transportation bicycles, check out "The Bicycle Industry's Greatest Opportunity" in our blog's April 2007 archive.◆



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My Recumbent Life

By Hank Fetters

In 1967 I bought a used Schwinn 3-speed and rode it to work for over 20 years. My distance to work was only 4 miles, but sometimes I took the long way home riding 12 miles. In 1995 my wife bought me a Bianchi Boardwalk upright for my birthday. I would say this was the first real bike I ever owned. My longest ride on the Bianchi was 42 miles and I must stay, a very sore rear end was my reward.

I rode my first recumbent in 1996, and purchased my first recumbent in 1998 and here is my story:

My first experience with a recumbent came in 1996. I was able to try out a ReBike 18-speed (20"/16" version). I rode the bike with some interest in it, but the price was \$400 and the quality was nothing compared to my Bianchi.

I began reading all I could find about recumbents and contacted Easy Racers and got information on their bikes. At that time the EZ1 was their new model (built in California). I went to a bicycle show in Chicago and collected brochures from Easy Racers, RANS, Lightning, Vision and BikeE. I was also able to ride several bikes in an indoor arena. This really gave me the bug for a recumbent.

Later I went to the Recumbent Rally in Stevens Point, WI and rode all of the bikes I could. I rode a Vision under-seat steering — which I could not get used to. I rode a Lightning Thunderbolt SWB, and sort of liked it and then I rode the EZ1 again — a very good bike. The owner had placed four carpenter's wood shims under the front of the seat to tilt it up and back — and for me it was a perfect fit.

In 1998 I bought a used ReBike because the price was right. I enjoyed it, but found it heavy and clunky. I still have it, but seldom ride it. After reading about the Cycle Genius CG24 (high bottom bracket CLWB) in RCN in 2002, I found one at Wheel and Sprocket in Hales, Corner, WI on sale for \$450. I bought it after riding it around the parking lot and adjusting the seat several times,

WISCONSIN

We moved from Indiana back to my wife's home town of Sparta, Wisconsin. Sparta is the home of the Elroy-Sparta trail, the first rail-trail conversion in the USA back in 1967. I began to look around for a lighter, faster bike and ended up buying a used Lightning Stealth SWB (montube version of the P-38) which had no serial number on it. I called Lighting in California to get more information about the bike, but they weren't very helpful.

Shortly after moving to Sparta, I got a job at a local bike shop (Speed's Bike Shop & Electric Motor Repair). Sparta is a small town of 8,000



The Sun EZ Sport is a very popular recumbent



The venerable Sun EZ1

population. The shop carried Sun recumbents: EZ1, EZ Sport and EZ3. Because we are located on the Elroy-Sparta trail we have about 100 bicycles in our rental fleet. The recumbents consist of two EZ1s, two EZ Sports and an EZ tandem. The other bikes are mountain and cross bikes. Because I work in the shop, I felt that I should buy an EZ1 since I ride to work on my EZ1 every day. At the end of the season I was able to get a good price on a three year old rental EZ1 (perhaps like the RCN 094 test bike). Prior to this I had been riding my CG24 to work.

I installed Kenda Kwest 100 psi tires, and fenders on my EZ1. This helps to eliminate the "chopped off look at the rear" as Bob Bryant described in an early RCN road test. I also added a rear rack. The next year I added a Sun Edge fairing (covers handlebars only). I've also added the carpenters shims to life the front edge of the seat off the flat top tube (perhaps also accomplished by converting the bike to a 20" front wheel). I am 5'6" with a 28" inseam, so the EZ1 is much easier for me to sit on flat footed as compared to the higher seat and higher bottom bracket of my Cycle Genius.

I have gotten to the point where I like the bike better than the Cycle Genius. The EZ1 has more available accessories and the rack was easier to install. My Cycle Genius had the sprung mesh seat base, which makes it more difficult to get your feet on the ground easily. I also like the higher seat back on Sun recumbents. At first I thought the higher bottom bracket of the Cycle Genius made the bike faster, but I now think whichever I ride is the fastest one. My Lightning Stealth, with it's high bottom bracket, gives me toe numbness after about 20 miles. I

was miserable riding a 50 mile race last year on this bike. My first century ride was on my EZ1. At the end I was tired, but had no aches or pains.

Last year, I bought a new EZ Sport and rode it on a lot of long rides of 40-60 miles. I installed Sun's Edge fairing on it and was NOT able to ride it faster than my EZ1. I was disappointed as I thought it would be faster. There is a section on the bike trial that is slightly down hill. On the EZ1 I can go 29 mph with the fairing. The best that I could do on my EZ Sport is 27.8 mph. I tried it over and over with both bikes. Since the EZ1 was faster, I ended up selling the EZ Sport. The Lightning is a faster bike climbing hills, but that all I will say for it. With the drop style handlebars with bar ends facing the ground, my hands sometimes get tingly and numb and my shoulders ache as well. The high handlebar also limits my forward vision and it doesn't feel as safe for me as the EZ1. The other annoying thing about the Lightning, especially if I'm a couple of pounds heavier than usual, is that when my legs come up close to my body, I feel uncomfortable in my gut that has to do with the riding position of this bike.

OVERVIEW

So here is my overview of recumbent bicycle riding. If you are riding for health, for fun, riding to work, or to the store, than I believe the Sun EZ1 is still the best little recumbent there is, dollar for dollar. I can hang it on a regular bike rack, put it inside our Astro van (3rd seat removed, front wheel next to the side door). If you add the Kenda Kwest tires (stock for 2006), a rack, fenders and a fairing, it goes as fast as necessary on a century ride

We're in Florida for the winter. I was racing a Sun Speedster. I got to 27.4 mph and he slowly passed me at 27.7 mph — and I'm 68 years old (the other rider was younger)! We were both riding at the Bacchetta recumbent rally in Pinellas County, Florida. I rode both the new Cafe and didn't like it. I rode an Agio. It's like a RANS Tailwind (with a 26" rear wheel) and is okay. To this day I have yet to ride any recumbent that I have liked better than the EZ1. ◆

For a full review of the EZ1, visit out blog (sidebar link) http://recumbentcyclist.blog spot.com.

The author, Hank Fetters, is retired and spends his time in Wisconsin riding the Elroy-Sparta trail and Florida, which has become the offseason hotbed of recumbent activity. When not out riding his recumbents, Hank has worked for Speed's Bike Shop in Wisconsin and for Bicycle Outfitters building bicycles in Florida during the holidays.

Back Page: The Hot-Seat

By Bob Bryant

If you've read RCN for very long you may have noticed that I'm frequently on the hot-seat for something. One thing about me is that if you want to nit-pick or dissect anything I've written — you have a lot of ammunition with 100 issues of RCN in print over the last 16 years. I frequently hear that I only like "Easy Racers bikes", "Long Wheelbase bikes", "Crank-Forwards" or "Trikes."

The truth is that I like all recumbents — and bicycles for that matter. For longer rides in the country or touring I prefer a robust long wheelbase recumbent — preferably with lots of foot/wheel clearance for big tires with fenders (I'm currently looking for this bike). I like going fast down quiet country roads on performance bents, and racing around neighborhood streets on trikes. I also have a upright MTB/commuter for trail riding in the woods and riding on rainy days. I love low speed trail riding.

I've been criticized for not liking highracers and performance recumbents. It's true that skinny tire bikes don't work as well for my local riding, as I can't take them on trails, local shortcuts through the woods (cuts of miles of riding and is a safer route). That said, I like them and if I had the bucks for a fleet of bents' I'd own one — and the lighter the better. I'd also have a shell seat on it. I have given great reviews to previous Bacchettas and Volaes. We currently have a Volae Expedition Pro here now. I love the concept of the dual big wheels. Utilizing high end road bike components to standardize and lighten our bikes is a brilliant idea.

As for other performance bikes, I have never tested a lowracer, nor do I hear from builders. I have owned many performance recumbents over the years and I like them very much.

Some people think I don't like bikes with high pedals/bottom bracket. What I believe is that these are more for serious enthusiasts who want to wear Lycra and use clipless pedals. A recumbent with low pedals doesn't require these items. Here is a quote from a recent RCN: "Serious enthusiasts are capable of making up their own minds what works best for them." This pretty much sums it up.

Contrary to popular belief, I don't hate Lycra. I own some and use it when I go on non-commuting sporting rides. What I don't like is when a Lycra-clad racer makes me feel inadequate for being a utlity/commuter cyclist — like I'm just not serious enough or good enough.

To be honest, it really doesn't matter what I like. I much prefer to publish reader-reviews by passionate enthusiasts who love what they are writing about. If they need help writing with the article, we can do that too. We loved Jay Singer's Challenge article in this issue and Diane Pittman's SatRDay article in RCN 099. It

is also our privelage to work with writers such as Larry Varney (Catrike Expedition) and Alan Barnard (Easy Racers Javelin).

CURRENT BENTS GOOD ENOUGH?

A blogger wrote a critical post about my RCN 099 essay online, "The Ultimate Affordable and Rider Friendly Recumbent." However, he never wrote a letter to RCN about it. I won't debate each of his comments as he has a right to his own opinion, but here is my bottom line: If a manufacturer built the recumbent based the basic criteria in my article — it could be a great news for our industry. There is nothing negative about it and I think everybody would agree (except perhaps this blogger) that a sub-\$1000, 26"/20", low pedals, rider-friendly, long wheelbase with a low step-over frame and around 30 pounds would be a good thing.

My intention for this article was to get people to THINK about promoting recumbency to a wider spectrum of people — perhaps the 65% of Americans who don't ride bikes, or even the forward thinking people starting to think about bikes as transportation (see the link to Trek/John Burke's Tapei address about "The Bicycle Industry's Greatest Opportunity" in our blog's April 2007 archive.

This blogger's comments led me to wonder if he thinks the current crop of recumbents are *good enough*, can't get any better and perhaps we shouldn't even try to make them better? My view is that the bikes can always get better, more comfortable, more affordable and be sold to a larger market. Note to blogger: please write a letter to RCN next time.

ACTIONBENT ONLINE CRITICS

A few enthusiasts at an online forum were commenting about our RCN 099 Actionbent review and how it was misleading. One reader even thought it was a parody. RCN is unique in that we publish reader and owner reviews. The benefit is that there are many voices — not just the same reviewer. I don't think the author bought the bike with the idea of spending all of that money on upgrades. He was initially looking for an affordable tough SWB. This was not your typical recumbent road test — but the Actionbent is not your average recumbent. It seems to appeal to bargain hunters and tinkerers — buyers who are willing to go it alone without a local dealer to lean on."

Another forum reader commented that perhaps the article was titled incorrectly, and perhaps should have been called, "How I blew \$1,200 and learned my lesson." Perhaps a bit harsh, but I agree the article could have been titled better. I'm was most disappointed that there were criticisms of the article by people who had never read the article — such is life on the Internet.

RCN SMALLER?

I've had a few comments about the smaller size of the last few RCN issues. The reason for the smaller size is that we lost about three pages of advertisers for 2007. We also reduced the type face size from 10-point to 9-point in order to make RCN a bit more compact, lighter and more affordable to mail.

We were hit with the biggest postal increase that I can ever recall in May of this year. First class postage went up .27 cents per mailed RCN! This may necessitate a format redesign to a smaller page size. We are currently exploring the possibilities. Printing has also gone up significantly in the last two years and RCN rates haven't gone up at all.

REVIEWS WANTED

We'd like go received reader reviews of the Catrike Trail, Lightfoot Explorer, Sun trikes, Bacchetta Corsa, Carbon Aero, and Cycle Genius LTX. We also need some good touring, home-built, or customizing stories. If you have an idea for a bike review or RCN story, please email us at: recumbentcyclist@gmail.com.

RCN TIPS

DISC WHEELS & BRAKES: If you are buying a bike with linear (V-) brakes, then you probably want natural aluminum rims (not dark anodized), or at least machined sidewalls and you don't really want disc hubs (they are weaker because they have more off-set for the disc rotor. It seems like some of the rim makers don't do as very good of a job machining the seams of wheels that are meant for disc brakes.

ON BIKE WEIGHT: Seen on the web: "All Bicycles weigh 40 pounds; A 30 pound bicycle needs a 10 pound lock. A 20 pound bicycle needs a 20 pound lock. A 40 pound bicycle doesn't need a lock. — Bicycle Law."◆

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